

ABSTRACT OF THE DISCLOSURE

A humidification system and method particularly well adapted for use in commercial aircraft to provide substantially micro-organism free humidified air within a passenger cabin of the aircraft. The system employs a vessel for holding a quantity of water therein. The vessel is disposed within a microwave oven which is used to heat the water within the vessel to the boiling point such that steam is generated therefrom. This steam is directed into an airflow duct and used to humidify an airflow being supplied into a cabin area of the aircraft. The steam is substantially micro-organism free. A controller is used to cycle the filling and draining of the vessel to achieve a desired humidity level for the airflow. Optimally, a vacuum accumulator is employed to assist in rapid draining of the water from the vessel. The system provides the further advantage that the build up of mineral deposits within the components of the system are avoided due to the rapid draining of water from the vessel and the fact that water does not contact any heating element of the system.